

IN THE CLAIMS

Please cancel Claims 1-22 without prejudice or disclaimer.

Please add the following new claims.

Listing of Claims:

✓ Claims 1-22 (canceled)

AI 23. (new) A method operating a distributed processing system having a network coupling a multiplicity of Host distributed devices for processing workloads for the distributed processing system, a plurality of Client systems requesting processing of the workloads, and a Server system for selectively distributing the workloads from the plurality of Client systems for processing by the distributed processing system comprising the steps of:

receiving a request by the Server system from one of the plurality of Client systems to use the distributed processing system to process a first workload;

sending the first workload to a first Host distributed device selected from the multiplicity of Host distributed devices;

sending to the first Host distributed device an index of one or more data addresses defining a location of first data required to process the first workload;

accessing the first data from a first data address selected from the one or more data addresses in the index; and

updating the index to include a storage address of storage coupled to the first Host distributed device as a location of the first data.

24. (new) The method of claim 23, wherein the multiplicity of Host distributed devices are coupled to the network in response to an incentive supplied by the Server system.

25. (new) The method of claim 24, wherein the incentive defines an advantage for the multiplicity of Host distributed devices to couple to the network.

26. (new) The method of claim 23, wherein the first Host distributed device is selected to process the first workload in response to capability values of a capability vector for the first system stored in a capability database coupled to the server system.

27. (new) The method of claim 23, wherein the first Host distributed device is selected to process the first workload in part because a data address for the first data required to process the first workload in the index corresponds to a storage address for accessing storage coupled to the first Host distributed device.

28. (new) A distributed data processing system comprising:

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a multiplicity of Host distributed devices coupled to a network such that the Host distributed devices process workloads for the distributed processing system;

a Server system coupled to the network for distributing workloads to selected of the multiplicity of Host distributed devices;

a database coupled to the Server system for storing capability vectors having capability values defining an ability of each of the multiplicity of Host processing devices has for processing workloads for the distributed processing system;

an index stored in the database having one or more storage addresses defining storage locations for accessing data required to process workloads for the distributed processing system;

circuitry for accessing first data required for a first workload by a first Host distributed device processing the first workload using an address of the first data stored in the index, wherein the first Host distributed device stores the first data at a first data address when processing the first workload; and

circuitry in the first Host distributed device for automatically updating the index in the database to include the first data address as a location for the first data.

29. (new) A computer program product operating within a Server system managing a distributed processing system, wherein the Server system is coupled to a network, the network configured to enable the Server system to be coupled to a multiplicity of Host distributed devices for processing workloads for the distributed processing

system, the program product comprising a program of instructions for performing the program steps of:

configuring a database in storage coupled to the Server system for storing and accessing capability vectors have capability values defining an ability each of the multiplicity of Host distributed devices has for processing workloads for the distributed processing system;

configuring an index in the database for storing addresses defining locations of data required to process each workload the Server system submits to the distributed processing system for processing;

AI sending storage addresses of first data required to process a first workload for from the index to a first Host distributed device when the first Host distributed device is selected to process the first workload; and

updating the index with a storage address of the first data within storage coupled to the first Host distributed device when the first Host distributed device is selected to process the first workload.

30. (new) A software agent operating within each of a multiplicity of Host distributed devices coupled to a network, the network configured to enable a Server system to selectively couple the multiplicity of Host distributed devices to perform workloads for a distributed processing system, the software agent comprising a program of instructions for performing the program steps of:

receiving in a first Host distributed device selected from the multiplicity of Host distributed devices a first workload, an application program to process the first workload, and an index of storage addresses defining one or more locations for accessing first data required to process the first workload;

accessing the first data from one of the storage addresses in the index;

storing the first data at a first storage address in storage coupled to the first Host distributed device when the first Host distributed device is selected to process the first workload; and

updating the index by adding the first storage address as an address for accessing the first data.